

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Before the Board of Patent Appeals and Interferences

In re the Application

Inventor : TAN
Application No. : 10/516,546
Filed : 12/02/2004
**For : METHOD AND APPARATUS FOR AUTO-TUNING OF
A RADIO FM-RECEIVER**

APPEAL BRIEF

On Appeal from Group Art Unit 2618

Date: 4/7/08

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(Signature and Date)

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RELATED PROCEEDINGS

EVIDENCE

TABLE OF CASES

NONE

I. REAL PARTY IN INTEREST

The real party in interest is NXP B.V., the successor in interest to the present assignee of record of the present application, Koninklijke Philips Electronics N.V., and not the party named in the above caption.

II. RELATED APPEALS AND INTERFERENCES

With regard to identifying by number and filing date all other appeals or interferences known to Appellant which will directly effect or be directly affected by or have a bearing on the Board's decision in this appeal, Appellant is not aware of any such appeals or interferences.

III. STATUS OF CLAIMS

Claims 1-3 are pending, all of which stand finally rejected. Claim 2 forms the subject matter of the present appeal. Claims 4-7 have been canceled.

IV. STATUS OF AMENDMENTS

All amendments have been entered. No amendment after final rejection has been submitted.

V. SUMMARY of the CLAIMED SUBJECT MATTER

The present invention relates to a radio scanning technique for setting presets of an FM radio. It is often experienced that such presets produce only noise and not an intelligible radio signal. The invention aims to avoid this situation. While the means for

achieving the desired end are indeed simple, the result is a marked improvement over conventional methods.

In conventional methods, exemplified by the primary reference Kennedy, a two-part test is applied to a received signal, including an "intensity" test and an "AFC window" test. If the received signal passes both tests, a preset for that signal is stored.

In the present invention, the two-part test is applied repeatedly (for example 10 times) at intervals. The received signal must pass both tests some minimum number of times (for example, 8 times) in order for a preset to be stored.

The following analysis of independent claim 1 is presented for convenience:

Element	Figure(s)	Paragraph(s) and/or page(s)
1. Method of auto-tuning a radio FM-receiver by scanning the receiver frequency band until a FM signal is received meeting criteria for identifying the signal as being of a predetermined quality, particularly coming from a valid FM station,	Sole figure	
wherein at least during tuning it is established whether or not the FM signal meets the criteria,	Sole figure, 5 and 6	Page 3, line 6 to page 4, line 8.
whereafter the FM signal is tested a predetermined number of times,	Sole figure, 4	Page 3, line 6 to page 4, line 8.
and information denoting a frequency of the FM signal is stored only if the criteria are met a majority of the times.	Sole figure, 8	Page 3, line 6 to page 4, line 8.

The following analysis of independent claim 3 is presented for convenience:

Element	Figure(s)	Paragraph(s) and/or page(s)
3. Auto tuning device comprising:		
means for registering whether or not a FM signal, received in a radio FM receiver, meets criteria for identifying the signal as being of a predetermined quality, particularly coming from a valid FM station,	Sole figure	Page 3, line 6 to page 4, line 8.
counting means for registering in an interval of a predetermined number of times that is registered whether or not the FM signal meets the criteria, the number of times the FM signal meets the criteria, and	Sole figure, 5 and 6	Page 3, line 6 to page 4, line 8.
means for storing information denoting a frequency of the FM signal only if the criteria are met a majority of the times.	Sole figure, 8	Page 3, line 6 to page 4, line 8.

VI. GROUNDS of REJECTION to be REVIEWED ON APPEAL

The issues in the present matter are whether:

1. under 35 USC 102, claim 2 is anticipated by Moers.

VII. ARGUMENT

I. Rejection of Claims 1-3 as Anticipated by Moers

An important feature of the present invention as claimed in claims 1 and 3 is the application of a majority test whereby a received frequency must meet certain quality criteria during a majority of successive tests before the frequency is stored in a preset memory. Moers does not disclose such a feature but discloses a different channel quality test.

In particular, Moers discloses a permanency factor that is incremented when a quality test is passed and is decremented when a quality test is failed. In an exemplary embodiment, the permanency factor has a maximum of three and a minimum of zero (col. 5, lines 33-48). If the permanency factor reaches zero, then storage pertaining to the frequency being tested is released for the storage of information pertaining to a different frequency. Pressing an autostore key causes information pertaining to the 10 “best” frequencies (already stored in another memory or portion of memory) to be stored in an autostore memory (col. 5, lines 48-67). The selection of the 10 best frequencies is carried out based in part on the permanency factor.

One can appreciate, however, that the permanency factor is no indication that the frequency has passed a quality test a majority of a predetermined number of times. One may, with the benefit of hindsight, stipulate certain conditions under which, *coincidentally*, the result is the same as if the frequency has passed a quality test a majority of a predetermined number of times. For example, if the maximum permanency factor is stipulated to always be odd, and storage to the autostore memory only occurs if the permanency factor is equal to the maximum, then the result is the same.

Such hindsight, however, is impermissible. The reference itself contains no hint of such coincidental conditions.

To take the particular case of claim 2 (8 out of 10 tests positive), the rejection makes much of the fact that a maximum permanency factor of 3 as described in Moers is merely exemplary. Applicant fully agrees. There is no reason that the maximum permanency factor might not be 4, 5, 6 or more. However, if the maximum permanency factor is 4 or 6, the features of claims 1 and 3 are not met. Furthermore, Applicant is unable to discover any conditions under which the features of claim 2 is met. The features of claim 2 are not met, as suggested in the rejection, by taking the number of successive scans as 10 and setting the permanency threshold to 8. If the starting permanency value is already at 8, for example, then over the next 10 successive scans, half could test positively and half could test negatively (no majority, yet alone an 8/10 super-majority) and still yield a final permanency value of 8. Considering that in the specific case anticipation by Moers fails, the fact is more abundantly clear that Moers in no way teaches or suggests the general case.


Independent claim 3 claims an apparatus for performing the method of claim 1 and is believed to be patentable for the same reasons as claim 1.

In view of the above, applicant submits that all of the above referred-to claims are patentable over the teachings of the cited references.

VIII. CONCLUSION

In view of the above analysis, it is respectfully submitted that the referenced teachings, whether taken individually or in combination, fail to anticipate or render obvious the subject matter of any of the present claims. Therefore, reversal of all outstanding grounds of rejection is respectfully solicited.

Date: 4/6/08


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IX. APPENDIX: THE CLAIMS ON APPEAL

1. Method of auto-tuning a radio FM-receiver by scanning the receiver frequency band until a FM signal is received meeting criteria for identifying the signal as being of a predetermined quality, particularly coming from a valid FM station, wherein at least during tuning it is established whether or not the FM signal meets the criteria, whereafter the FM signal is tested a predetermined number of times, and information denoting a frequency of the FM signal is stored only if the criteria are met a majority of the times.

2. Method as claimed in claim 1, wherein that the results are read 10 times and the information denoting a frequency of the FM signal is only stored only if at least 8 times thereof the criteria are met.

3. Auto tuning device comprising:

means for registering whether or not a FM signal, received in a radio FM receiver, meets criteria for identifying the signal as being of a predetermined quality, particularly coming from a valid FM station,

counting means for registering in an interval of a predetermined number of times that is registered whether or not the FM signal meets the criteria, the number of times the FM signal meets the criteria, and

means for storing information denoting a frequency of the FM signal only if the criteria are met a majority of the times.

X. APPENDIX: RELATED PROCEEDINGS

NONE

XI. APPENDIX: EVIDENCE

NONE